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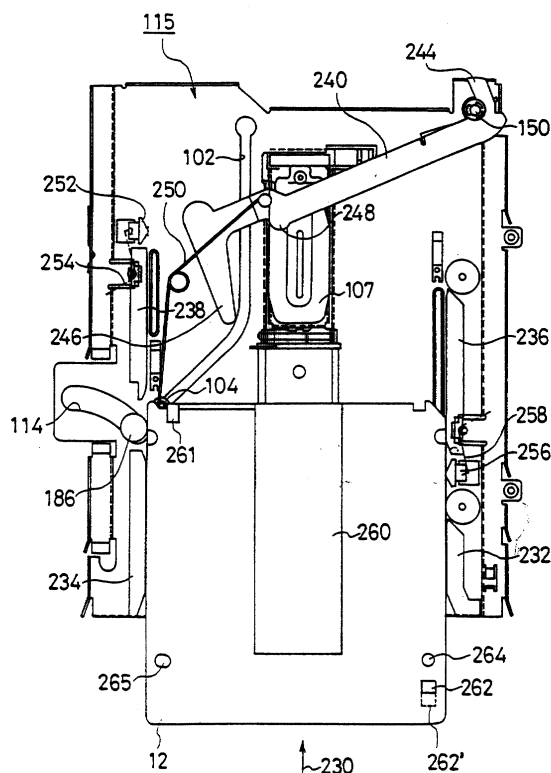
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(54) **Optical disk apparatus**

(57) An optical disk drive has an inserting/ejecting mechanism for commonly performing an insertion and ejection of a CD mounted on a CD carrier and an MO cartridge and a recording and reproducing mechanism for commonly performing processes of a medium. The inserting/ejecting mechanism has: a loading mechanism which is activated when a CD and a CD carrier on which a disk has been mounted or a medium as an MO cartridge are inserted in an inserting/ejecting port and moves the medium to the position of a spindle motor and attaches to a motor rotary shaft; and an ejecting mechanism which is activated on the basis of a medium ejecting instruction and moves the medium to an ejecting position of the inserting/ejecting port after the medium was removed from the spindle motor.

FIG. 20





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# EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	EP 0 518 259 A (SONY CORP) 16 December 1992 (1992-12-16) * column 4, line 18 - column 6, line 46; figures 1-3,7,8 *	1,2	G11B17/04
A	EP 0 526 204 A (SONY CORP) 3 February 1993 (1993-02-03) * column 3, line 26 - column 5, line 23; figures 2-6 *	1,2	
A	EP 0 632 441 A (KENWOOD CORP) 4 January 1995 (1995-01-04) * abstract *	1,2	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			G11B
The present search report has been drawn up for all claims			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>5 June 2001</b>	Examiner <b>Sozzi, R</b>
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 10 7797

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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05-06-2001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0518259 A	16-12-1992	JP 2897457 B	31-05-1999
		JP 4362560 A	15-12-1992
		KR 251251 B	15-04-2000
		US 5301176 A	05-04-1994
EP 0526204 A	03-02-1993	JP 2927063 B	28-07-1999
		JP 5036182 A	12-02-1993
		DE 69213860 D	24-10-1996
		DE 69213860 T	13-02-1997
		US 5299185 A	29-03-1994
EP 0632441 A	04-01-1995	JP 2981368 B	22-11-1999
		JP 7006467 A	10-01-1995
		JP 2981381 B	22-11-1999
		JP 7121960 A	12-05-1995
		DE 632441 T	24-08-1995
		US 5719849 A	17-02-1998